AMENDMENTS TO THE SPECIFICATION
(other than claims)

Please replace paragraph beginning at page 1, line 15, which starts with "Because diamond is composed of," with the following amended paragraph:

~~Because d~~Diamond is composed of ~~silicon (Si), which is widely used in semiconductor materials, and~~ carbon (C), ~~which is~~ a Group IVb element in the same family as silicon (Si), which is widely used in semiconductor materials, and because ~~it~~ diamond possesses the same crystalline structure as Si, diamond may be regarded as a semiconductor material. In terms of being a semiconductor material diamond has an extraordinarily large bandgap of 5.5 eV, and a high carrier mobility of 2000 $cm^2/V \cdot s$ for electrons/holes alike at room temperature. And with its dielectric constant being a small 5.7, its breakdown electric field is a large 5×10^6 *V*/cm. Diamond also has the unusual property of negative electron affinity, in that its vacuum level is present below the lower edge of its conduction band.